respectively; median number of prior regimens in both groups was 5. Twelve patients (30%) in group A and 42 patients (69%) in group B had a prior autologous SCT.

Results: Median follow up in surviving patients was 8.2 years in group A and 2 years in group B. Reduced-intensity conditioning (RIC) regimens were used in 15 patients (37%) in group A, and 56 patients (92%) in group B. Cumulative TRM in group A and B was 57% and 31%, respectively (p = 0.006). Disease progression was seen in 15 patients (37.5%) in group A and in 31 patients (50%) in group B (p = 0.22). Time to progression from allo SCT was 10.1 moths, with no significant difference between the 2 groups (p = 0.85). As shown in Figures 1 and 2, patients in group B had significantly longer PFS (7.3 vs. 4.8 months; p = 0.03, log rank test) and OS (13.1 Months vs. 5.9 months; p = 0.008, log rank test). Grade II-IV acute GVHD was seen in 21 patients (52%) in group A, and 21 patients (34%) in group B (p = 0.09). Limited or extensive chronic GVHD was seen in 15 patients (37%) in group A, and 20 patients (32%) in group B (p = 0.67). At the time of this analysis, 3 patients in group A and 18 in group B were alive, while 2 patients in group A and 12 in group B were alive and in remission.

Conclusions: Patients transplanted after January 2000 although older and having failed a prior ASCT had significantly lower TRM, lower incidence of acute GVHD and significantly longer PFS and OS.

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HIGH DOSE CHEMOTHERAPY WITH AUTOLOGOUS STEM CELL TRANSPLANTATION FOR MULTIPLE MYELOMA: ACHIEVEMENT OF COMPLETE REMISSION IS ASSOCIATED WITH IMPROVED SURVIVAL

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We analyzed results of 108 patients of multiple myeloma who underwent autologous stem cell transplantation (ASCT). Patients' median age was 52 years (range, 26 to 68 years), M:F : 78 : 30. High dose melphalan (200 mg/m2) was used for conditioning. 66 (61%) patients had evidence of chemo-sensitive disease prior to transplant. Following ASCT 79.6% of patients responded; complete (CR) - 36%, very good partial response (VGPR) -29.6%, and partial response (PR) -13.9%. CR rate was higher for patients with chemo-sensitive disease; 33/66 patients (50.0%) achieved CR compared with 7/42 patients (14.3%) with progressive disease, p<.01. At a median follow up of 70 months , the median overall (OS) and event-free survival (EFS) is 71 and 42 months, respectively . Estimated overall and event-free survival at 60 months is 54.4% ± 0.05 %(SE) and 49.3% ± 0.05(SE), respectively. For patients with pre-transplant chemo-sensitive disease median OS (102 vs 38 months ,p<.0003) and EFS (96 vs for 21 months,p<.0002) is significantly higher. Mean OS for patients with CR is 148.99 months (95% CI 116.75–181.23) (median not reached) and for those with VGPR is 73.81 (95% CI 58.91–88.71) (median not reached) ,p<0.04. Median OS for patients with PR, stable disease and those with progressive disease is 39, 24 and 11 months, respectively (p<0.0003). Median EFS for patients with CR is 129.9 months (95% CI 101.3–158.5) and 52.4 months (95% CI 41–63.8) for those with VGPR ,p<.03. Median EFS for patients with PR, stable and progressive disease is 20, 15 and 5 months respectively, p<0.0001.

Conclusion : Survival is significantly better for patients with pre-transplant chemo-sensitive disease and those who achieve complete remission following transplant.

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BUSULFAN AND CYCLOPHOSPHAMIDE HAS SIMILAR OUTCOMES TO HIGH DOSE MELPHALAN AS A PREPARATIVE REGIMEN FOR AUTOLOGOUS STEM CELL TRANSPLANTATION IN PATIENTS WITH MULTIPLE MYELOMA

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High dose chemotherapy (HDC) with autologous stem cell transplant (ASCT) has been shown to increase the rate of complete response and prolong survival in multiple myeloma (MM). We report a single-institution experience comparing two conditioning regimens, busulfan (oral dose, 16mg/kg; intravenous dose 12.8mg/kg) and cyclophosphamide (120mg/kg) (BuCy) versus high dose melphalan (200 mg/m^2) (HDM). Between January 2000 and March 2008, 152 patients (pts) with MM underwent HDC with ASCT using either BuCy (n = 117; 73 pts (62%) received oral Bu) or HDM (n = 35) in sequential cohorts as the preparative regimen. 61 patients (52%) in the BuCy group and 26 patients (74%) in the HDM group were male (p = 0.02). The two groups were otherwise similar with respect to age, ISS stage, β2 microglobulin, number of prior chemotherapy regimens, prior radiation therapy, FEV1 and DLCOc pre transplantation. In the group receiving BuCy, 81 patients (69%) are alive with a median follow up of 20.2 months (range, 5.3–97.5). In the HDM group, 31 patients (88%) are alive with a median follow up of 18.7 months (range, 3.8–55.4). The median relapse free survival (RFS) for patients receiving the BuCy regimen was 3.3 years and for patients receiving HDM has not yet been observed (p = 0.052). The median overall survival (OS) for patients receiving the BuCy regimen was 6.1 years and for patients receiving HDM has not been observed. Patients treated with BuCy achieved granulocyte count >500/μL by day 10 (range, 9–13) whereas patients treated with HDM recovered by day 13 (range, 10–17) post-transplant (p<0.001). Patients achieved platelet counts greater than 20,000/μL at a median of 12 days (range, 8–46) after BuCy and by 13 days (range, 8–27) after HDM treatment (p = 0.039). Treatment related mortality (TRM) was documented in 7 patients (5.9%) in the BuCy group and 2 patients (5.7%) in the HDM group. Bacteremia was documented in 19 patients (16%) in the BuCy group and 10 patients (28%) in the HDM group. BuCy led to faster hematopoietic recovery compared to HDM. RFS, OS and TRM were similar. BuCy and HDM confer similar long-term outcomes with comparable toxicities as conditioning regimens prior to ASCT in patients with MM. Studies of tandem transplantation might benefit from using busulfan based regimen in place of a second melphalan-based regimen.

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MAINTENANCE THERAPY WITH LOW DOSE THALIDOMIDE, DEXAMETHASONE, AND CLARITHROMYCIN (BIAXIN) (BLT-D) FOLLOWING AUTOLOGOUS TRANSPLANT (ASCT) FOR MULTIPLE MYELOMA (MM)

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Since relapse remains a major problem after ASCT for MM, investigators have looked at the role of maintenance therapy post transplant. It is not yet established as to what maintenance regimen is best nor what is the optimal duration for therapy. M. Coleman et al (*Leukemia and Lymphoma* 43: 1777, 2002) pioneered a regimen of BLT-D to treat non-transplant MM patients, with high CR/PR rate(93%). Thus, it seemed reasonable to study the regimen of BLT-D as maintenance therapy after ASCT for MM. Twenty-seven patients (stage II, n = 8; stage III, n = 19 by Durie-Salmon) were treated. Before ASCT, 52% of patients received Thalidomide; 37% received > one regimen (range 2–4) prior to chemomobilization of PBSC. At time of ASCT, 20% of patients were in CR/nCR. All patients were conditioned with melphalan 200 mg/m^2. At 30–120 days after recovery from acute toxicity of ASCT, patients were treated with Biaxin 250 mg po bid, dexamethasone 20 mg po weekly and Thalidomide beginning dose 50 mg po daily for D1–14, then increased to 100 mg po daily. Aspirin was used for DVT prevention. After one year of combination therapy, dexamethasone and Biaxin were stopped. Thalidomide was continued as long as tolerated until disease progression. One patient withdrew from therapy to undergo elective 2nd ASCT. Neuropathy was the most common toxicity; 11 patients(41%) stopped because of unimproved ≥ grade 2 neuropathy, median 12 months of therapy (range 6–30), and 7 patients(30%) required dose reduction of Thalidomide. One patient stopped Thalidomide for rash. Nine patients(33%) had dose reduction of dexamethasone. Median time of Thalidomide therapy for all patients is 15 months (range 3–43). The number of infections included: pneumonia (n = 3), viral upper respiratory (n = 2), sinusitis (n = 1), and bronchitis (n = 3). As of 9/08, 22 patients(82%) remain alive, with median follow-up of 3.54 years (range 1.98–4.19). Five patients have died due to infection (n = 1), MM (n = 3), and complications of 2nd ASCT (n = 1). Fifteen patients(56%) of 27 remain alive without disease progression, median TTP was 18 months (range 3–39). Four patients remain on therapy at 25–43 months. In summary, BLT-D can